V_{RSM} V_{RRM} V	I_{FRMS} (maximum values for continuous operation) 220 A I_{FAV} (sin. 180; T_{case} = 65 °C; 50 Hz) 140 A
1600	**SKKE 120 F 16**
1700	**SKKE 120 F 17**

SEMIPACK® 2
Fast Diode [1] Modules

SKKE 120 F

SKKE

Symbol	Conditions	SKKE 120 F	Units
I_{FAV}	sin. 180; T_{case} = 85 °C	116	A
	T_{case} = 65 °C	140	A
I_{FSM}	T_{vj} = 25 °C; 10 ms	2 000	A
	T_{vj} = 150 °C; 10 ms	1 800	A
i^2t	T_{vj} = 25 °C; 8,3...10 ms	20 000	A^2 s
	T_{vj} = 150 °C; 8,3...10 ms	16 200	A^2 s
I_{RM}	T_{vj} = 25 °C; I_F = 120 A	60	A
	T_{vj} = 150 °C; di/dt=500 A/µs	90	A
t_{rr}	T_{vj} = 25 °C; V_R = 1200 V	typ. 250	ns
Q_{rr}	T_{vj} = 150 °C	55	µC
I_R	T_{vj} = 25 °C; V_R = V_{RRM}	0,4	mA
	T_{vj} = 125 °C; V_R = V_{RRM}	50	mA
V_F	T_{vj} = 25 °C; I_F = 200 A	2,7	V
$V_{(TO)}$	T_{vj} = 150 °C	1,5	V
r_T	T_{vj} = 150 °C	4,5	mΩ
R_{thjc}		0,2	°C/W
R_{thch}		0,05	°C/W
T_{vj}		– 40 ... +150	°C
T_{stg}		– 40 ... +150	°C
V_{isol}	a. c. 50 Hz; r.m.s; 1 min.	4000	V~
M_1	to heatsink SI units	5 ± 15 %	Nm
	to heatsink US units	44 ± 15 %	lb. in
M_2	to terminals SI units	5 ± 15 %	Nm
	to terminals US units	44 ± 15 %	lb. in
w	approx.	250	g
Case	→ page B 2 - 46	A 54	

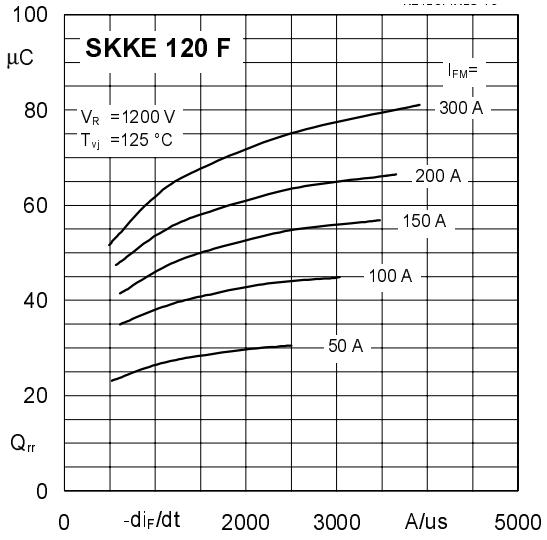
[1] CAL (controlled axial lifetime) technology, patent No. DE 43 10 44

Features

- Heat transfer through ceramic isolated metal baseplate
- Very short recovery times
- Soft recovery
- Low switching losses
- Up to 1600 V peak inverse voltage
- UL recognized, file no. E 63532

Typical Applications

- Self-commutated inverters
- DC choppers
- AC motor speed control
- Inductive heating
- Uninterruptible power supplies
- Electronic welders
- General power switching applications



ig. 16 Typ. recovered charge vs. current decrease

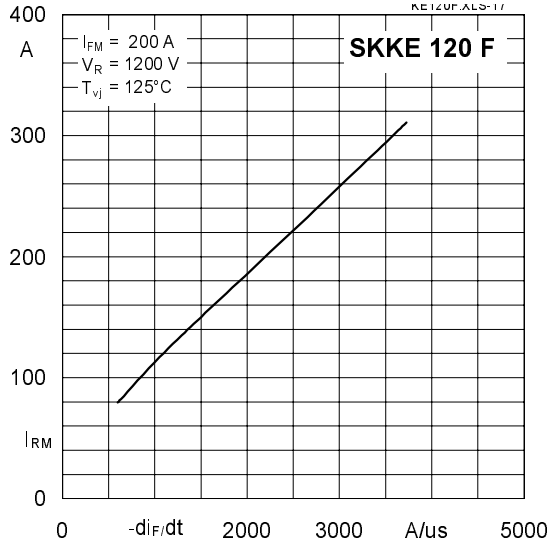
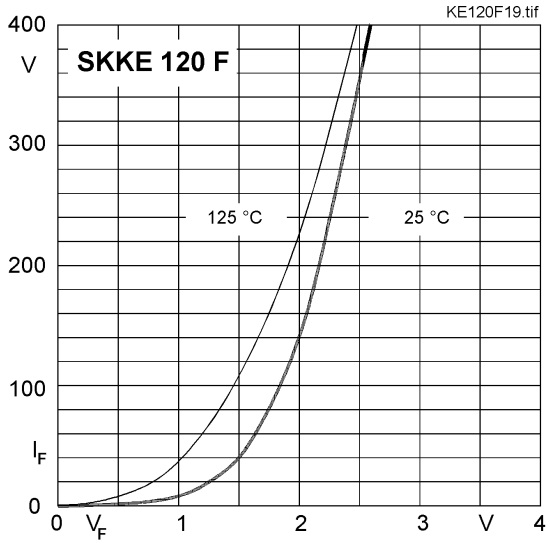


Fig. 17 Typ. peak recovery current vs. current decrease

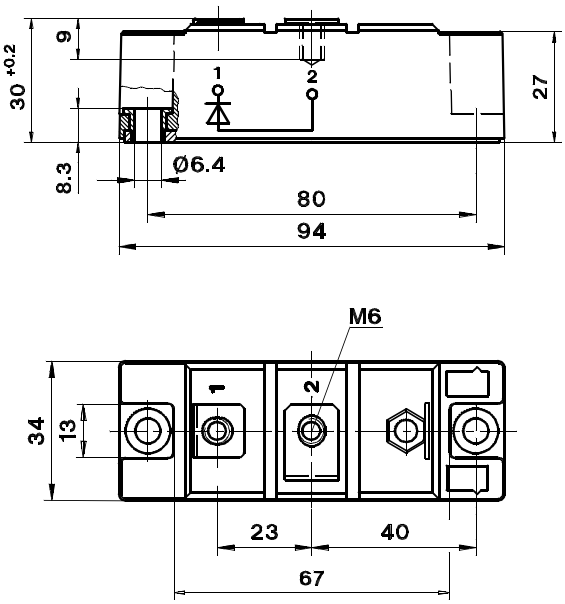


ig. 19 Typ. forward characteristic

SKKE 165 M

Case A 55

SEMIPACK® 2



Dimensions in mm

SKKE 120 F, 301 F

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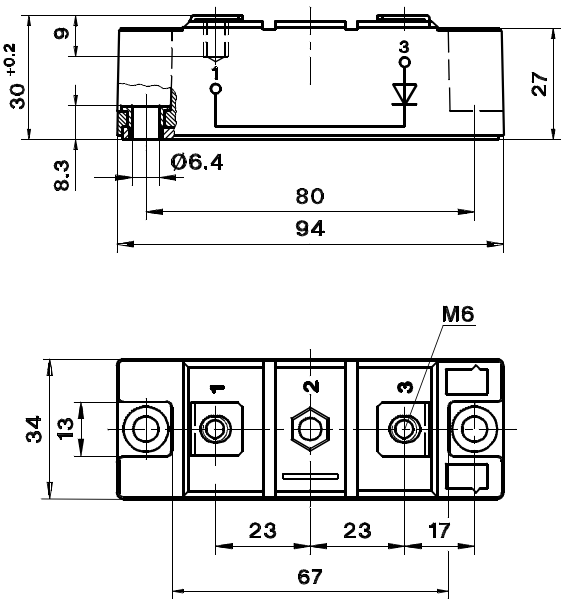

Dimensions in mm

